

What is claimed is:

1. A CDMA (Code Division Multiple Access) mobile
2 communication system comprising a base station and a
3 mobile station connected to said base station by radio
4 through reverse-link and forward-link control channels,
5 said base station comprising:

6 monitor means for monitoring a forward-link
7 transmission power value radiated to said mobile
8 station;

9 calculation means for, when the forward-link
10 transmission power value becomes smaller than a
11 predetermined steady output value, calculating system
12 parameter information of said mobile station, which
13 corresponds to the reduced forward-link transmission
14 power value; and

15 notification means for notifying said mobile
16 station of the system parameter information of said
17 mobile station, which is output from said calculated
18 means, and

19 said mobile station comprising:

20 transmission power control means for, when
21 said mobile station in a standby state starts
22 originating/terminating operation to/from said base
23 station, controlling a transmission power value of the
24 reverse-link control channel from said mobile station on
25 the basis of a value obtained from a reception field

26 strength value of the forward-link control channel from
27 said base station and the system parameter information
28 of said mobile station, which is transmitted from said
29 base station.

2. A system according to claim 1, wherein the
2 system parameter information of said mobile station is a
3 transmission power initial constant value representing
4 an absolute value of transmission power.

3. A system according to claim 1, wherein the
2 system parameter information of said mobile station is a
3 transmission power correction value representing a
4 difference from a transmission power initial constant
5 set in said base station.

4. A system according to claim 1, wherein
2 said base station comprises first storage
3 means for storing the system parameter information
4 related to said base station and mobile station in
5 advance, and
6 when said mobile station is in the standby
7 state, said notification means notifies said mobile
8 station of the system parameter information related to
9 said mobile station, which is stored in said first
10 storage means.

5. A system according to claim 4, wherein said
2 first storage means updates and stores the system
3 parameter information related to said mobile station,
4 which is calculated by said calculation means.

6. A system according to claim 4, wherein said
2 mobile station comprises second storage means for
3 storing the system parameter information related to said
4 mobile station, which is transmitted from said base
5 station.

7. A system according to claim 1, wherein said
2 transmission power control means determines transmission
3 power TXm of the reverse-link control channel in
4 accordance with

$$\text{TXm} = -\text{RXb} + \text{A}$$

6 where -RXa is a variable value in inverse proportion to
7 the reception field strength and A is a transmission
8 power initial constant value as the system parameter
9 information of said mobile station, which is transmitted
10 from said base station.

8. A transmission power control method for a
2 mobile communication system for executing radio
3 communication between a mobile station and a base
4 station using a CDMA (Code Division Multiple Access)
5 scheme, comprising the steps of:

6 monitoring a forward-link transmission power
7 value radiated to the mobile station;
8 when the forward-link transmission power value
9 becomes smaller than a predetermined steady output value,
10 calculating system parameter information of the mobile
11 station, which corresponds to the reduced forward-link
12 transmission power value; and
13 when the mobile station in a standby state
14 starts originating/terminating operation to/from the
15 base station, determining a transmission power value of
16 the reverse-link control channel from the mobile station
17 on the basis of a value obtained from a reception field
18 strength value of a forward-link control channel from
19 the base station and the calculated system parameter
20 information of the mobile station.

9. A method according to claim 8, wherein the
2 system parameter information of the mobile station is a
3 transmission power initial constant value representing
4 an absolute value of transmission power.

10. A method according to claim 8, wherein the
2 system parameter information of the mobile station is a
3 transmission power correction value representing a
4 difference from a transmission power initial constant
5 set in the base station.

11. A method according to claim 8, wherein the
2 determinating step comprises the step of determining
3 transmission power TXm of the reverse-link control
4 channel in accordance with
5
$$TXm = -RXb + A$$

6 where -RXa is a variable value in inverse proportion to
7 the reception field strength and A is a transmission
8 power initial constant value as the system parameter
9 information of the mobile station, which is transmitted
10 from the base station.